NC/QC/YD/2019-20/W9-SP-C1 Date: 23-12-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**174 min**	Shall not be less than 30 min
2	Final setting time	**265 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.09 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.96 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.42 N/Sq mm**	Shall not be less than 27 N/Sqmm

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EMAIL:newzen576@gmail.com

NC/QC/YD/2019-20/W9-SP-PCC1 **Date: 23-12-2019**

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	**100.00**	85-100	90 – 100
20mm	**58.10**	0 -20	30- 70
10mm	**17.95**	0 -5	10- 35
4.75mm	**3.80**	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	**95.45**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**81.65**	60-95	75-100	85-100	
01.18	**64.90**	30-70	55-90	75-100	
600.mic	**39.20**	15-34	35-59	60-79	
300.mic	**14.55**	5-20	8-30	12-40	
150.mic	**7.60**	0-10	0-10	0-10	

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NCQC/YD/2019-20/W9-SP-C2 **Date: 26-12-2019**

TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**168 min**	Shall not be less than 30 min
2	Final setting time	**290 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.96 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.89 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.44 N/Sq mm**	Shall not be less than 27 N/Sqmm

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NCQC/YD/2019-20/W9-SP-FA1 **Date: 26-12-2019**

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.

{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -II	
04.75	**98.30**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**78.95**	60-95	75-100	85-100	
01.18	**71.60**	30-70	55-90	75-100	
600. mic	**56.50**	15.34	35-59	60-79	
300.mic	**24.85**	5-20	8-30	12-40	
150.mic	**5.75**	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	**Requirements** as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	**17.29 %**	-----
2	Silt Content	----	**0.62 %**	Not more than 8%
3	Specific Gravity	----	**2.60**	-------

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NC/QC/YD/2019-20/W9-SP-CA1 **Date: 26-12-2019**

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.

{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	**100.00**	100.00	100.00
20 mm	**96.05**	85-100	90 - 100
10 mm	**39.40**	0 - 20	25 - 55
4.75 mm	**3.75**	0 - 5	0 - 10

TABLE 1. 2 :

SL No	Test conducted	Results	Requirements as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	**24.17 %**	Not to exceed 25 %
2.	Crushing value	**27.94 %**	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

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NC/QC/YD/2019-20/W9-SP-S1 **Date: 26-12-2019**

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10 mm **TMT Steel.**

{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

TABLE – 1

SL No	Details	For 10 mm	
		Test Results	Min Req as per IS 1786-2008
01	Observed diameter of bar	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.621**	0.567
03	Proof stress/Yield stress, fy , **N/mm^2**	**528.0**	500.0
04	Bend/ Re bend Test	**Ok**	---
05	Percentage of Elongation, %	**20.90**	12.00
06	Ultimate Tensile Strength **N/mm^2**	**637.0**	545.0

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NC/QC/YD/2019-20/W9-SP-SB1 **Date: 28-12-2019**

1. TEST REPORT ON PRE –CAST SOLID BLOCKS:

Sub: Testing of Pre-Cast Solid Block- Compressive strength.

{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON PRE CAST(Solid Blocks)

BLOCK SPECIMENS

TABLE 1. 1:

Sl No.	Dimensions of Specimen **mm**	Details	Cross Sectional Area **mm^2**	Maximum Load in **KN**	Compressive Strength **N/mm^2**	**Average Compressive Strength N/mm^2**
1	400 X 150 X 200	**Solid**	60000	260	4.33	**4.28**
2	"	"	60000	245	4.08	
3	"	"	60000	265	4.42	

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NC/QC/YD/2019-20/W9-SP-CB1

Date: 13-01-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	06-01-20	13-01-20	07	22500	380	16.89	**16.52**
	002	"	"	"	"	360	16.00	
	003	"	"	"	"	375	16.67	

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NC/QC/YD/2019-20/W9-SP-CB2 **Date: 14-01-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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BBMP, Bangalore.
Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	07-01-20	14-01-20	07	22500	370	16.44	**16.59**
	002	"	"	"	"	365	16.22	
	003	"	"	"	"	385	17.11	

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NCQC/YD/2019-20/W9-SP-CB1A **Date: 03-02-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{**Project***: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	06-01-20	03-02-20	28	22500	505	22.44	**22.52**
	002	"	"	"	"	500	22.22	
	003	"	"	"	"	515	22.89	

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NZC/YD/2019-20/W9-SP-CB2A

Date: 04-02-2020

TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	07-01-20	04-02-20	28	22500	495	22.00	**22.30**
	002	"	"	"	"	510	22.67	
	003	"	"	"	"	500	22.22	

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NC/QC/YD/2019-20/W9-SP-CB3 **Date: 23-01-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	16-01-20	23-01-20	07	22500	465	20.67	**20.30**
	002	"	"	"	"	450	20.00	
	003	"	"	"	"	455	20.22	

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NC/QC/YD/2019-20/W9-SP-CB4 **Date: 24-01-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	17-01-20	24-01-20	07	22500	455	20.22	**20.52**
	002	"	"	"	"	470	20.89	
	003	"	"	"	"	460	20.44	

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NC/QC/YD/2019-20/W9-SP-CB3A **Date: 13-02-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	16-01-20	13-02-20	28	22500	630	28.00	**28.30**
	002	"	"	"	"	645	28.67	
	003	"	"	"	"	635	28.22	

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VD/2019-20/W9-SP-CB4A **Date: 14-02-2020**

TEST REPORT ON CEMENT CONCRETE CUBES:

Testing of Concrete Cubes (for 28days Compressive Strength).
Project*: Providing of Water supply UGD Security Room and other Developmental works to Vidyaranyapura Swimming Pool in ward no 09 Vidyaranyapura.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. D. K. Nagaraj.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	17-01-20	14-02-20	28	22500	625	27.78	**27.85**
	002	"	"	"	"	635	28.22	
	003	"	"	"	"	620	27.56	

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